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10/509,734	03/25/2005	Koichi Moriyama	259705US90PCT	9813

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

YIGDALL, MICHAEL J

ART UNIT	PAPER NUMBER
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2192

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/509,734	Applicant(s) MORIYAMA ET AL.	
	Examiner Michael J. Yigdoll	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to Applicant's reply filed on January 15, 2009. Claims 1-12 are pending.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive.

Applicant contends that nothing in Imamatsu describes allocating an area in ROM 32, flash ROM 33 or RAM 34 because a permanent download buffer 44 whose only use is storing software updates is provided (remarks, page 10).

However, the examiner does not agree with Applicant's conclusion. "Allocating" an area in memory is understood to mean "reserving" an area in memory, or to the extent described in Applicant's specification, "securing" an area in memory. In Imamatsu, the download buffer 44 is an area in flash ROM 33 that is reserved for storing an update file (see, e.g., FIG. 4A and column 6, lines 62-64). In other words, Imamatsu reserves, secures or "allocates" an area in memory for storing the update file. The examiner notes that the claims are given the broadest reasonable interpretation consistent with the specification. See MPEP § 2111.

The claims specify only that the area is allocated "by limiting the operation of software" (e.g., claim 2) and that the area is secured "on the basis of the size information included in the update file information" (e.g., claim 3). Applicant notes that the "only use" of the download buffer 44 is for storing the update file. Thus, Imamatsu "limits" the operation of the software such that the download buffer 44 is used only for storing the update file. Furthermore, Imamatsu describes how the size of the download buffer 44 is chosen (see, e.g., column 7, lines 6-23), and

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specifically illustrates the allocation of the download buffer 44 on the basis of “size information included in the update file information” (see, e.g., FIG. 6 and column 8, lines 33-47). Therefore, Imamatsu teaches or suggests “allocating” an area in memory such as recited in the claims.

Because the download buffer 44 is an area in flash ROM 33, Imamatsu does not describe that the area is allocated in “rewritable volatile memory.” Nonetheless, as set forth in the Office action, Winters teaches an area in rewritable volatile RAM that is used for storing an update file (see, e.g., column 7, lines 56-60), and likewise one of ordinary skill in the art could, with predictable results, implement the teachings of Imamatsu such that the download buffer 44 in an area in the rewritable volatile RAM 34.

Accordingly, the combined teachings of the references would have suggested the claimed subject matter to those of ordinary skill in the art.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: As amended, independent claims 1, 9 and 10 recite “allocating” an area required for storing an update file in the rewritable volatile memory. However, Applicant’s specification as originally filed does not include any form of the term “allocating.”

Claim Rejections under 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,687,901 to Imamatsu (already of record, "Imamatsu") in view of U.S. Patent No. 7,100,011 to Winters et al. (already of record, "Winters").

With respect to claim 1 (currently amended), Imamatsu teaches a communication terminal including a rewritable non-volatile memory and a rewritable volatile memory (see, for example, mobile terminal device 10 in FIG. 3 and column 4, lines 47-49, which shows that the device includes main memory 23 comprising a rewritable non-volatile flash ROM and a rewritable volatile RAM), the communication terminal comprising:

means for limiting operation of software which uses the rewritable volatile memory and allocating an area required for storing an update file in the rewritable volatile memory before receiving the update file from a software management server (see, for example, step S53 in FIG. 8 and column 11, lines 18-21, which shows limiting the operation of control software 43, and see, for example, column 6, lines 62-64, which shows allocating a download buffer 44 for storing an update file before receiving the update file from a software supply device 50).

Imamatsu illustrates that the download buffer 44 is an area in the rewritable non-volatile flash ROM (see, for example, FIG. 4A) rather than in the rewritable volatile RAM.

Nonetheless, one of ordinary skill in the art could, with predictable results, implement the teachings of Imamatsu such that the download buffer 44 is an area in the rewritable volatile RAM. For example, in an analogous art, Winters teaches a communication terminal comprising a rewritable non-volatile flash memory and a rewritable volatile RAM (see, for example, column

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8, lines 24-29). Winters further teaches that an area for storing an update file is secured in the rewritable volatile RAM (see, for example, column 7, lines 56-60).

Therefore, as Winters suggests, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Imamatsu such that the transfer status transition means is for securing an area required for storing an update file in the rewritable volatile memory. One of ordinary skill in the art would have been prompted to do so to further minimize the size of the rewritable non-volatile memory, as Imamatsu suggests (see, for example, column 7, lines 14-19).

Imamatsu in view of Winters further teaches:

means for requesting transfer of the update file to the software management server after the area required for storing the update file in the rewritable volatile memory is secured (see, for example, step S45 in FIG. 8 and column 10, lines 1-5, which shows requesting transfer of the update file);

means for receiving the update file from the software management server, and storing the update file in the rewritable volatile memory (see, for example, step S46 in FIG. 8 and column 10, lines 56-59, which shows receiving and storing the update file in the download buffer 44);
and

means for rewriting software stored in the rewritable non-volatile memory that is directly executed, with the update file stored in the rewritable volatile memory (see, for example, column 11, line 65 to column 12, which shows rewriting the control software 43 with the update file stored in the download buffer 44, and see, for example, FIG. 4A, which shows that the control software 43 is stored in the rewritable non-volatile flash ROM).

With respect to claim 2 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches that the means for receiving stores the update file in the area of the rewritable volatile memory, allocated by limiting the operation of software which uses the rewritable volatile memory (see, for example, column 7, lines 20-23, which shows that the update file is stored in the download buffer 44 and that use of the download buffer 44 is limited to storing the update file).

With respect to claim 3 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches:

means for receiving update file information, including size information of the update file from the software management server (see, for example, FIG. 11 and column 10, lines 29-41, which shows receiving size and other update file information from the software supply device 50),

wherein the means for limiting secures the area for storing the update file in the rewritable volatile memory on the basis of the size information included in the update file information (see, for example, column 7, lines 20-23, which shows that use of the download buffer 44 is limited to storing the update file, and see, for example, FIG. 6 and column 8, lines 33-47, which shows that the download buffer 44 is based on the size information).

With respect to claim 4 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches:

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means for storing identification information of the communication terminal (see, for example, column 5, lines 1-4, which shows that the mobile terminal device 10 stores identification information); and

means for transmitting the stored identification information of the communication terminal to the software management server (see, for example, column 5, lines 1-4 and 25-28, which shows transmitting the identification information to a base station 103 and the software supply device 50).

With respect to claim 5 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches:

means for storing identification information of the software stored in the rewritable non-volatile memory (see, for example, FIG. 5 and column 8, lines 5-8, which shows storing version identification information of the control software 43); and

means for transmitting the stored identification information of the software to the software management server (see, for example, step S41 in FIG. 7 and column 9, lines 35-39, which shows transmitting the version identification information to the software supply device 50).

With respect to claim 6 (currently amended), the rejection of claim 5 is incorporated, and Imamatsu in view of Winters further teaches that the means for receiving receives a differential file, transmitted from the software management server on the basis of the identification information of the software (see, for example, column 7, lines 23-25, which shows receiving a differential file in the form of a patch).

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With respect to claim 7 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches that the means for receiving receives the update file by wireless communication (see, for example, FIG. 2 and column 3, lines 17-34, which shows that the update file is received over wireless communication channels).

With respect to claim 9 (currently amended), the claim is directed to a computer-readable medium that is analogous to elements recited in claim 1 (see the rejection of claim 1 above).

With respect to claim 10 (currently amended), the claim is directed to a system comprising elements that are analogous to elements recited in claim 1 (see the rejection of claim 1 above).

6. Claims 8 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Imamatsu in view of Winters, as applied to claims 1 and 10 above, respectively, and further in view of U.S. Patent No. 6,381,741 to Shaw (already of record, "Shaw").

With respect to claim 8 (currently amended), the rejection of claim 1 is incorporated, and Imamatsu in view of Winters further teaches:

means for judging whether a rewrite of the software is successful (see, for example, column 12, lines 38-45, which shows judging whether or not the rewriting succeeds).

Imamatsu describes retrying the update if the rewriting fails (see, for example, column 12, lines 38-45), but does not explicitly describe:

means for performing wire communication with a software restoration apparatus for restoring the software by transferring the software to the rewritable non-volatile memory, when

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the means for judging judges that the rewrite of the software executed by the software rewrite means fails; and

means for receiving the software from the software restoration apparatus and storing the software in the rewritable non-volatile memory.

Nonetheless, one of ordinary skill in the art could incorporate such means into the teachings of Imamatsu with predictable results. For example, in an analogous art, Shaw teaches a communication terminal and a software restoration apparatus (see, for example, FIG. 1). Shaw further teaches performing wire communication (see, for example, column 3, lines 13-19) and receiving software from the software restoration apparatus (see, for example, column 4, lines 44-49) after judging that the software stored in the communication terminal is corrupt (see, for example, column 3, line 66 to column 4, line 5).

Therefore, as Shaw suggests, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Imamatsu such that the communication terminal comprises means for performing wire communication with a software restoration apparatus and means for receiving the software from the software restoration apparatus. Such an implementation would provide the ability to restore corrupted software, as Shaw suggests (see, for example, column 5, line 63 to column 6, line 2).

With respect to claim 12 (currently amended), the claim is directed to a system comprising elements that are analogous to elements recited in claim 8 (see the rejection of claim 8 above).

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7. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Imamatsu in view of Winters, as applied to claim 10 above, and further in view of U.S. Patent No. 6,959,436 to Peng (already of record, “Peng”).

With respect to claim 11 (currently amended), the rejection of claim 10 is incorporated, and Imamatsu in view of Winters further teaches that the communication terminal further includes

means for storing identification information of the software stored in the rewritable non-volatile memory (see, for example, FIG. 5 and column 8, lines 5-8, which shows storing version identification information of the control software 43),

means for transmitting the identification information of the stored software, to the software management server (see, for example, step S41 in FIG. 7 and column 9, lines 35-39, which shows transmitting the version identification information to the software supply device 50).

Imamatsu further teaches that the means for receiving the update file receives a differential file transmitted by the software management server (see, for example, column 7, lines 23-25, which shows receiving a differential file in the form of a patch), but does not explicitly describe that the software management server further includes

means for producing a differential file of the update software of the software on the basis of the identification information of the software transmitted from the communication terminal,

means for transmitting the differential file to the communication terminal.

Nonetheless, one of ordinary skill in the art could incorporate such means into the teachings of Imamatsu with predictable results. For example, in an analogous art, Peng teaches a

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communication terminal and a software management server (see, for example, FIG. 1). Peng further teaches producing a differential file to update the software stored in the communication terminal (see, for example, column 15, lines 61-67).

Therefore, as Peng suggests, it would have been obvious to those of ordinary skill in the art at the time the invention was made to implement the teachings of Imamatsu such that the software management server includes means for producing and transmitting a differential file. Such an implementation would optimize transmission of the update file, as Peng suggests (see, for example, column 11, lines 60-66).

Conclusion

8. Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is 571-272-3707.

The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Yigdall
Primary Examiner
Art Unit 2192

/Michael J. Yigdall/
Primary Examiner, Art Unit 2192